

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- Please enter
JH*
1. (Currently Amended) An exercise device which comprises:
- a first arm having a first end and a second end;
 - a second arm having a first end and a second end;
 - a joint assembly defining an axis of rotation, said first end of said first arm being attached to said joint assembly to establish a fixed relationship between said first arm and said axis, with said first end of said second arm being pivotally attached to said joint assembly for rotation of said second arm about said axis in a first direction and in a second direction;
 - a means attached to said second end of said first arm for stabilization of said second end of said first arm during a movement of said ~~first~~ second arm about said ~~stabilized second end thereof~~ axis of rotation; ~~[[and]]~~
 - ~~a means mounted on said joint assembly for establishing a resistance to said rotation of said second arm about said axis.~~
 - a shaft mounted on said joint assembly and fixedly interconnected with said second arm;
 - a one-way clutch engageable with said shaft;

a cone member engaged with said one-way clutch for free rotation of said second arm relative to said cone member around said axis in said second direction, and for rotation of said second arm with said cone member around said axis in said first direction, said cone member having a surface;

a cup member fixedly attached to said first arm, said cup member having a surface dimensioned for a mating engagement with said surface of said cone member at an interface there between to establish said resistance to said rotation of said second arm, and wherein said cup member is formed with an annular groove, said groove being centered on said axis of rotation and lying in a plane substantially perpendicular thereto;

a guide pin, said guide pin being mounted on said second arm for insertion into said groove to interconnect said second arm with said joint assembly;

a plunger;

a force transfer mechanism positioned between said plunger and said cone member;

a knob mounted on said cup member and connected to said plunger, said knob being rotatable to selectively move said plunger relative to said cone member to activate said force transfer mechanism and urge said surface of said cone member against said surface of said cup member to establish said resistance; and

a plurality of spring-loaded detents, said spring-loaded detents being mounted on said cup member to urge against said knob to provide an aural signal in response to rotation of said knob.

Claims 2 and 3 (Canceled)

4. (Currently Amended) An exercise device as recited in claim [[2]] 1 wherein said surface of said cone member is tapered, and wherein said surface of said cup member is tapered.

5. (Currently Amended) An exercise device as recited in claim [[3]] 1 wherein said force transfer mechanism comprises:

a spring; and

a thrust bearing to allow relative motion between said plunger and said cone member.

Claims 6 and 7 (Canceled)

8. (Currently Amended) An exercise device as recited in claim [[2]] 1 further comprising a friction liner positioned at said interface between said surface of said cone member and said surface of said cup member.

9. (Original) An exercise device as recited in claim 1 wherein said stabilizing means is a foot pedal.

10. (Original) An exercise device as recited in claim 1 further comprising a handle attached to said second end of said second arm.

11. (Original) An exercise device as recited in claim 10 wherein said handle can be selectively oriented relative to said second arm.

12. (Original) An exercise device as recited in claim 1 further comprising:
a load sensor mounted on said device to generate signals representative of the magnitude of said resistance to said rotation of said second arm; and
a means for monitoring said signals.

13. (Currently Amended) An exercise device for use by a person which comprises:

a first arm having a first end and a second end;

a second arm having a first end and a second end;

a joint assembly defining an axis of rotation, said first end of said first arm being attached to said joint assembly to establish a fixed relationship between said first arm and said axis, with said first end of said second arm being pivotally attached to said joint assembly for rotation of said second arm about said axis in a first direction and in a second direction;

a one-way clutch mounted on said joint assembly to interconnect said clutch with said second arm;

a means attached to said second end of said first arm for stabilization of said second end of said first arm during a movement of said first ~~second~~ second arm about said ~~stabilized second end thereof~~ axis of rotation;

a cone member engaged with said one-way clutch for free rotation of said second arm relative to said cone member around said axis in said second direction, and for rotation of said second arm with said cone member around said axis in said first direction, said cone member having a surface; [[and]]

a cup member fixedly attached to said first arm, said cup member having a surface dimensioned for a mating engagement with said surface of said cone member at an interface therebetween to establish a resistance to said rotation of said second arm[[.]], and wherein said cup member is formed with an annular groove, said groove being centered on said axis of rotation and lying in a plane substantially perpendicular thereto;

a means for interconnecting said second arm with said joint assembly;

a plunger;

a force transfer mechanism having a spring positioned between said plunger and said cone member; and

a knob mounted on said cup member and connected to said plunger, said knob being rotatable to selectively move said plunger relative to said cone member to activate said force transfer mechanism and urge said tapered surface of said cone member against said tapered surface of said cup member to establish said resistance.

14. (Original) An exercise device as recited in claim 13 further comprising a foot pedal attached to said second end of said first arm for stabilization of said first arm.

15. (Original) An exercise device as recited in claim 13 wherein said surface of said cone member is tapered, and wherein said surface of said cup member is tapered.

Claims 16 and 17 (Canceled)

18. (Original) An exercise device as recited in claim 13 further comprising:

a position sensor mounted on said device to generate signals representative of relative positions of said first arm and said second arm for said device; and

a means for monitoring said signals.

19. (Canceled)

20. (Original) An exercise device as recited in claim 13 further comprising a friction liner positioned at said interface between said surface of said cone member and said surface of said cup member.

Claims 21 - 25 (Canceled)

26. (Previously Presented) An exercise device which comprises:
- a first arm having a first end and a second end;
 - a second arm having a first end and a second end;
 - a joint assembly defining an axis of rotation, said first end of said first arm being attached to said joint assembly to establish a fixed relationship between said first arm and said axis, with said first end of said second arm being pivotally attached to said joint assembly for rotation of said second arm about said axis in a first direction and in a second direction;
 - a one-way clutch mounted on said joint assembly to interconnect said clutch with said second arm;
 - a cone member engaged with said one-way clutch for free rotation of said second arm relative to said cone member around said axis in said second direction, and for rotation of said second arm with said cone member around said axis in said first direction, said cone member having a surface;
 - a cup member fixedly attached to said first arm, said cup member having a surface dimensioned for a mating engagement with said surface of said cone member at an interface therebetween to establish a resistance to said rotation of said second arm;
 - a plunger;
 - a spring positioned between said plunger and said cone member; and

a knob mounted on said cup member and connected to said plunger, said knob being rotatable to selectively move said plunger relative to said cone member to activate said force transfer mechanism and urge said tapered surface of said cone member against said tapered surface of said cup member to establish said resistance.

27. (New) An exercise device which comprises:

a first arm having a first end and a second end;

a second arm having a first end and a second end;

a joint assembly defining an axis of rotation, said first end of said first arm being attached to said joint assembly to establish a fixed relationship between said first arm and said axis, with said first end of said second arm being pivotally attached to said joint assembly for rotation of said second arm about said axis in a first direction and in a second direction;

a means attached to said second end of said first arm for stabilization of said second end of said first arm during a movement of said second arm about said axis of rotation;

a mechanism interconnecting said first arm and said second arm for establishing a resistance to movement of said second arm in a selected direction;

a one-way clutch mounted to said device for engaging said second arm with said mechanism to resist movement of said second arm in the selected direction; and

a sub-mechanism for establishing the magnitude of the resistance.

28. (New) An exercise device as recited in claim 27 wherein said mechanism for establishing a resistance to movement of said second arm in a selected direction further comprises:

a cone member engaged with said one-way clutch for free rotation of said second arm relative to said cone member around said axis in said second direction, and for rotation of said second arm with said cone member around said axis in said first direction, said cone member having a surface; and

a cup member fixedly attached to said first arm, said cup member having a surface dimensioned for a mating engagement with said surface of said cone member at an interface there between to establish said resistance to said rotation of said second arm.